

WHAT IS CLAIMED IS:

1. An information processing apparatus which communicates with an IC card, on which information can be recorded, to read out information recorded in the IC card, comprising:

information acquisition means for acquiring said information recorded in said IC card;

information storage means for storing said information acquired by said information acquisition means;

information processing means for performing a predetermined process for said information; and

information display control means for controlling display of said information acquired by said information acquisition means.

2. An information processing method for an information processing apparatus which communicates with an IC card, on which information can be recorded, to read out information recorded in the IC card, comprising:

an information acquisition step of acquiring said information recorded in said IC card;

an information storage step of storing said information acquired by said process of said information acquisition step;

an information processing step of performing a predetermined process for said information; and

an information display control step of controlling display of said information acquired by said process of said information acquisition step.

3. A program for causing a computer to perform a process of communicating with an IC card, on which information can be recorded, to read out information recorded in the IC card, the program comprising:

an information acquisition step of acquiring said information recorded in said IC card;

an information storage step of storing said information acquired by said process of the information acquisition step;

an information processing step of performing a predetermined process for said information; and

an information display control step of controlling display of the information acquired by said process of said information acquisition step.

4. An information processing apparatus which communicates with an IC card, on which information can be recorded, to read out information recorded in the IC card, comprising:

IC card detection means for detecting said IC card

which is in a communicatable state;

type detection means for detecting a type of said IC card detected by said IC card detection means;

information acquisition means for acquiring the information stored in said IC card if a result of said discrimination by said type discrimination means indicates that said IC card is a legal type card; and

information display control means for controlling display of said information acquired by said information acquisition means.

5. An information processing apparatus according to claim 4, wherein said IC card is a contactless IC card which communicates with a communication apparatus positioned in the proximity thereof.

6. An information processing apparatus according to claim 4, wherein said detection means includes detection signal outputting means for outputting a predetermined detection signal, and response acquisition means for acquiring a response to said detection signal supplied from said IC card to said information processing apparatus and outputted from said detection signal outputting means, said detection means detecting the IC card which is in a communicatable state through acquisition of said response by said response acquisition

means.

7. An information processing apparatus according to claim 4, wherein the information includes identification information of said IC card and balance information of electronic money recorded in said IC card.

8. An information processing apparatus according to claim 7, wherein the information recorded in the IC card is information encrypted using a suitable one of encryption keys different among different types with regard to the IC card, and said information processing apparatus further comprising:

identification information requesting means for issuing a request for the identification information of said IC card;

decryption key supplying means for supplying a decryption key corresponding to the encryption key for being used to decrypt said information to said IC card; and

identification information acquisition means for acquiring the identification information of said IC card decrypted by said IC card using said decryption key supplied from said decryption key supplying means;

said type discrimination means discriminating the type of said IC card based on said type of said

decryption key used for the decryption of said identification information of said IC card acquired by said identification information acquisition means.

9. An information processing apparatus according to claim 7, wherein said information display control means controls display of said information so that said information may be displayed for a predetermined period of time.

10. An information processing apparatus according to claim 9, further comprising remaining time counting means for counting remaining display time when said information is displayed for said predetermined period of time under the control of said information display control means.

11. An information processing apparatus according to claim 10, wherein said information display control means causes said remaining display time counted by said remaining time counting means to be displayed together with said information.

12. An information processing apparatus according to claim 11, wherein said information display control means causes said remaining display time to be displayed in the form of an indicator or a message.

13. An information processing apparatus according

to claim 12, further comprising sound outputting means for outputting predetermined sound in synchronism with a start of display of said information under the control of said information display control means to issue a notification of said start of display of said information.

14. An information processing method for an information processing apparatus which communicates with an IC card, on which information can be recorded, to read out information recorded in the IC card, comprising:

an IC card detection step of detecting said IC card which is in a communicatable state;

a type discrimination step of discriminating a type of said IC card detected by the process of the IC card detection step;

an information acquisition control step of acquiring said information stored in said IC card if a result of said discrimination by the process of the type discrimination step indicates that said IC card is a legal type card; and

an information display control step of controlling display of said information acquired by said process of said information acquisition control step.

15. A program for causing a computer to communicate with an IC card, on which information can be

recorded, to read out information recorded in the IC card,  
the program comprising:

an IC card detection step of detecting said IC card  
which is in a communicatable state;

a type discrimination step of discriminating a type  
of the IC card detected by the process of the IC card  
detection step;

an information acquisition control step of  
acquiring the information stored in said IC card if a  
result of the discrimination by the process of said type  
discrimination step indicates that said IC card is a  
legal type card; and

an information display control step of controlling  
display of said information acquired by the process of  
said information acquisition control step.

16. An information processing apparatus which  
communicates with an IC card, on which information can be  
recorded, to read out information recorded in the IC card,  
comprising:

information acquisition means for acquiring said  
information recorded in said IC card;

information storage means for storing said  
information acquired by said information acquisition  
means;

information management control means for managing said information stored in said information storage means as information of said individual IC card and controlling readout and writing of said information from and into said information storage means; and

information display control means for controlling display of said information.

17. An information processing apparatus according to claim 16, further comprising:

IC card detection means for detecting the IC card which is in a communicatable state; and

type discrimination means for discriminating a type of the IC card detected by said IC card detection means;

said information acquisition means acquiring said information stored in said IC card if a result of the discrimination by said type discrimination means indicates that said IC card is a legal type card.

18. An information processing apparatus according to claim 17, wherein said detection means includes detection signal outputting means for outputting a predetermined detection signal, and response acquisition means for acquiring a response to the detection signal supplied from the IC card to said information processing apparatus and outputted from said detection signal



outputting means, said detection means detecting the IC card which is in a communicatable state through acquisition of said response by said response acquisition means.

19. An information processing apparatus according to claim 16, further comprising:

encryption means for encrypting said information in accordance with a predetermined method; and

decryption means for decrypting said information encrypted by said encryption means in accordance with a method corresponding to the method of encryption by said encryption means;

said information management control means writes said information encrypted by said encryption means into said information storage means;

said decryption means decrypting said encrypted information read out from said information storage means by said information management control means.

20. An information processing apparatus according to claim 16, further comprising sound outputting means for outputting predetermined sound in synchronism with a start of display of said information under the control of said information display control means to issue a notification of the start of display of said information.

21. An information processing apparatus according to claim 16, wherein said information includes identification information of said IC card, balance information of electronic money recorded in said IC card, and history information which is information relating to a history of commercial transactions performed using said IC card.

22. An information processing apparatus according to claim 21, wherein said information management control means uses the identification information of said IC card included in said information to manage said information for said individual IC card.

23. An information processing apparatus according to claim 22, wherein, when said information management control means writes first information which is a new version of the information into said information storage means, said information management control means updates, where second information which is the information corresponding to the identification information of said IC card same as that of said first information is present in said information storage means, the second information with the first information, but writes, when the second information is not present in said information storage means, the first information newly into said information

storage means.

24. An information processing apparatus according to claim 21, wherein said information display control means controls said balance information included in said information so as to be displayed for a predetermined period of time, said information processing apparatus further comprising request acceptance means for accepting a request regarding display of said history information included in said information for the period of time within which said balance information is displayed under the control of said information display control means, said information display control means causing, when said request is accepted by said request acceptance means, said history information corresponding to said IC card identification information same as that of said displayed balance information to be displayed.

25. An information processing apparatus according to claim 24, further comprising history information production means for producing the latest history information based on said information acquired by said information acquisition means and said information read out from said information storage means by said information management control means, said information display control means causing the latest history

information produced by said history information production means to be displayed.

26. An information processing apparatus according to claim 25, wherein said information display control means causes said history information which is not included in said information read out from said information storage means from within said latest history information produced by said history information production means to be displayed with a predetermined mark added thereto.

27. An information processing method for an information processing apparatus which communicates with an IC card, on which information can be recorded, to read out information recorded in the IC card, comprising:

- an information acquisition control step of managing said information acquisition recorded in the IC card;

- an information management control step of managing said information acquired under the control of the process of said information acquisition control step and stored in a storage section of said information processing apparatus as information of the individual IC card and controlling readout and writing of said information from and into said storage section; and

- an information display control step of controlling

display of said information.

28. A program for causing a computer to communicate with an IC card, on which information can be recorded, to read out information recorded in the IC card, the program comprising:

an information acquisition control step of acquiring said information recorded in the IC card;

an information management control step of managing said information acquired under the control of the process of the information acquisition control step and stored in a storage section of said information processing apparatus as information of said individual IC card and controlling readout and writing of the information from and into said storage section; and

an information display control step of controlling display of said information.